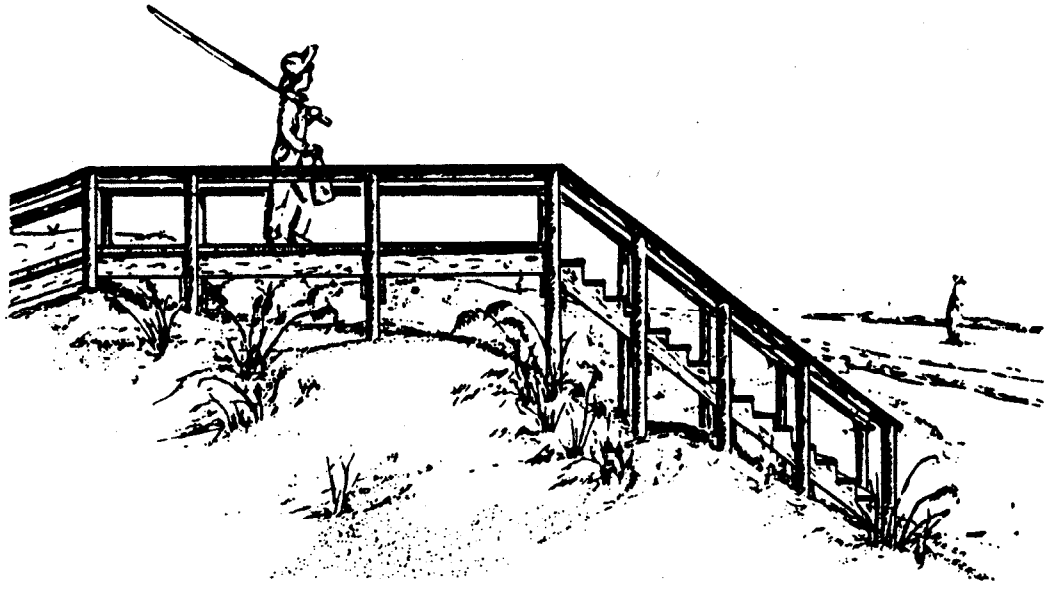
Coastal Engineering Technical Note

BEACH DUNE WALKOVER STRUCTURES



PURPOSE: To describe the use of beach dune walkover structures and present a typical design of this type structure. This Technical Note is intended to encourage the building of walkover structures in areas where dunes are threatened by human traffic.

GENERAL: Numerous dune systems along the coast are undergoing destruction due to the loss of vegetation caused by unrestricted access to the beach over the dune systems. As the vegetation is lost, the wind becomes capable of eroding the dune and causes a progressive deterioration of the entire dune system. In areas of high foot traffic, a beach walkover structure may be used to save this vegetation.

EXAMPLE: Figures 1 and 2 present typical design details of a structure for use in areas of heavy foot traffic, as a community public access ramp. The depths of pilings account for both depth necessary for structure stability, and added depth to account for possible dune deflation and storm erosion losses.

The designs are basic enough such that various alternatives can be added to the designs without altering the structures to a great degree. One such alteration would be a transverse extension of the deck section with benches for people to sit on overlooking the beach area. The addition of properly spaced, skid resistant materials to the decking of the ramp section of the large walkover structure would make the deck and the deck extension accessible to handicapped people in wheelchairs. Additional features which could also be added are limited only by the planner's imagination.

REFERENCE:

WALTON, T.L. and SKINNER, T.C., *Marine Advisory Program Bulletin*, Coastal and Oceanographic Engineering Laboratory, University of Florida, Florida Cooperative Extension Service, IFAS, Dec. 1976.

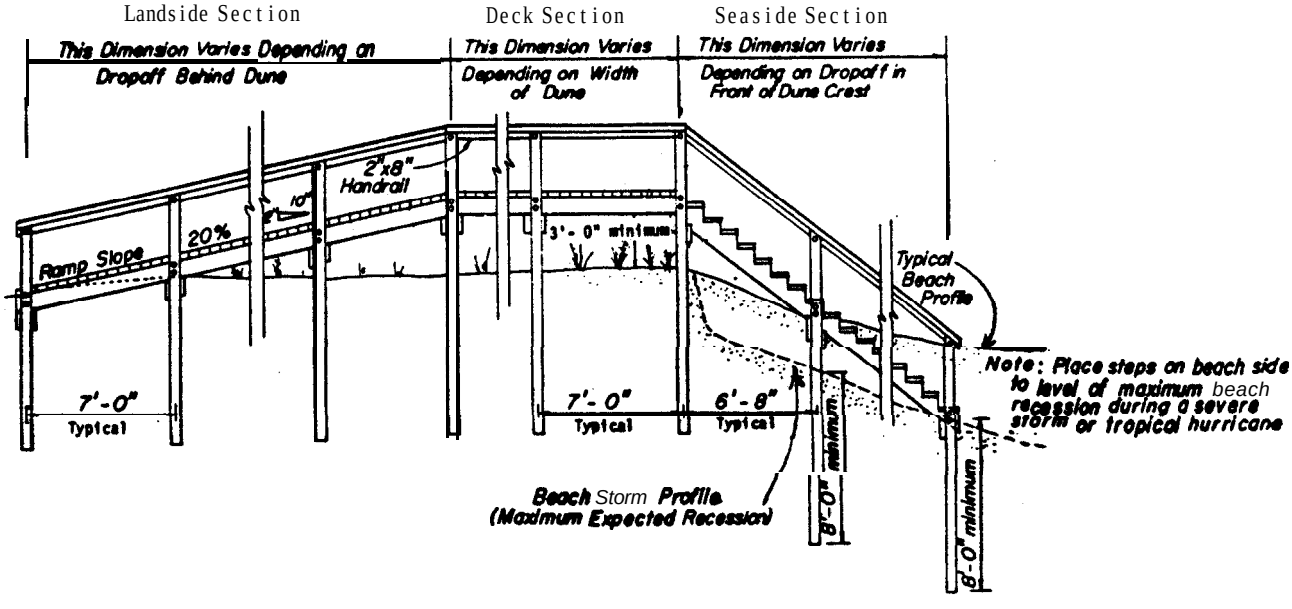


Fig. 1 TYPICAL ELEVATION

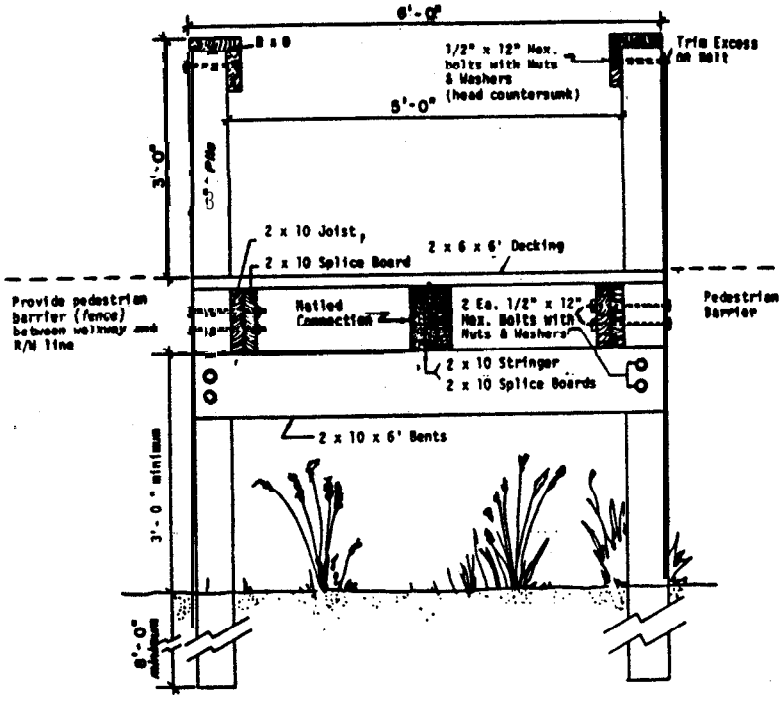


Fig. 2 TYPICAL DECK SECTION